

Environmental Economics No.3

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Natural Goods- Classification of natural goods

Natural resources are classified based on

Their ability to make a direct or indirect contribution to the satisfaction of human needs.

The criteria of excludability of use or rivalry in use.

The criteria of its ability to restock

On the basis of their origin

The availability for commercial use

Their ability to make a direct or indirect contribution to the satisfaction of human needs.

Consumer goods



Investment goods

Maslow's framework of various levels of needs.

many natural commodities that directly satisfy humans' needs at the basic level.

It is much harder to find natural resources which directly contribute to the satisfaction of needs at the top levels.

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Consumer goods



Investment goods

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Investment goods

They contribute indirectly to the satisfaction of human needs

By enabling the production of consumer goods.

They are used as factors of production

Fossil

fuels

wood

metals

water

Industry

Agriculture

Two problems may arise from the productive use of natural resources.



The stocks of the natural resources, **involved in production**, become depleted and may decline over time.

1

The stocks of other natural resources, **not involved in production** at all, are used up as well.

2

The criteria of **excludability of use or rivalry in use.**

private goods



excludability and rivalry

Natural gas

natural club goods



excludability and non-rivalry

a beach accessible only via a certain hotel

collective goods



Non-excludability and non-rivalry

purity of the atmosphere

open access goods



Non-excludability and rivalry

Sea fish



Severe environmental problems

Climate Destabilization

The criteria of its ability to restock

renewable



living resources

Fish, Coffee, and Forests

non-renewable



non-living resources

Soil, water, wind, tides and solar radiation

□ On the basis of their origin

biotic → living and organic resources

the foods, sugars, tea, coffee

abiotic → non-living materials

land, water, and air

□ On the basis of the availability for commercial use

potential resources → are known to exist and may be used in the future

Potential petroleum in Saudi Arabia

actual resources → surveyed, their quantity and quality determined, and are being used in present times

Petroleum in (the Ghawar Oil Field)

a reserve resource

That part of the actual resource that can be developed profitably with available technology

a stock resource

that part that cannot be developed profitably because of lack of technology

Note:

The above-mentioned classification of natural goods were mainly considered in Natural resource economics.

Natural Resource Economics

Natural resource economics deals with the supply, demand, management, and allocation of the earth natural resource.

sustainable methods of managing those resources

to ensure their availability to future generations.

study interactions between
economic system



natural system

Natural resource management

The management of natural resource with a particular focus on how management affects **the quality of life** for both present and future generations.

Natural resource management brings together issues like:

land use planning

water management

biodiversity conservation

future sustainability of industries

Thank you